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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/479,363	01/07/2000	Timothy James Graser	RO999-122	2954

7590   04/26/2002

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EXAMINER
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ART UNIT	PAPER NUMBER
2172	

DATE MAILED: 04/26/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 07-01)

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on _07 January 2000_ .

2a) ☐ This action is FINAL.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
   closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) _1-19_ is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) _1-19_ is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

   If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☐ All b)☐ Some * c)☐ None of:

   1. ☐ Certified copies of the priority documents have been received.

   2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

   3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage
      application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

   a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

1.   Claims 1-19 are pending in this application.

Claim Rejections - 35 USC § 103

2.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

3.   Claims 1-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over US

Patent No. 5,437,025 issued to Bale et al. (hereinafter Bale) in view of US Patent No.

5,822,580 issued to Leung.

With respect to claim 1, Bale discloses at least one processor (col. 3, lines 37-

60); a memory coupled to the at least one processor (col. 6, lines 27-43, col. 13, lines

62-67 and col. 14, lines 1-6); class configuration data comprising a plurality of entries

residing in the memory (col. 8, lines 1-61 and col. 13, lines 28-61; col. 11, lines 4-56);

and an object oriented class replacement mechanism residing in the memory and

executed by the at least one processor that generates an instance of a selected class

by using a key that includes context information to access the appropriate entry in the

class configuration data (col. 1, lines 60-67, col. 2, lines 1-49 and col. 7, lines 10-67).

Bale does not explicitly indicate, "each class configuration entry including a

key-value pair, wherein the key includes information relating to a selected processing

context and the value includes configuration data for a class in the selected processing

context."

However, Leung discloses key-value pair and a selected processing context as

claimed (col. 13, lines 38-67 and col. 14, lines 1-31; and col. 13, lines 1-37).

Therefore, it would have been obvious to a person of ordinary skill in the art at

the time the invention was made to combine the teachings of Bale with the teachings of

Leung so as to have an apparatus for providing context-based class replacement in an

object-oriented system database because the combination would provide the system

having the features in object-oriented computing environment for the replacement of

classes at any location in the hierarchy while preserving the inheritance of each class in

the hierarchy (Bale – col. 2, lines 3-49) in the object-oriented programming framework

environment.

With respect to claim 2, Bale discloses wherein the key comprises context

information appended to a class identifier as claimed (col. 4, lines 1-49 and col. 8, lines

1-29).

With respect to claim 3, Bale discloses an apparatus for providing context class

as discussed in claim 1.

Bale does not explicitly indicate, "wherein the class identifier comprises a class

token that comprises a text string."

However, Leung discloses class token that comprises a text string as claimed

(col. 10, lines 45-60, col. 13, lines 20-67 and col. 14, lines 1-31).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Bale with the teachings of Leung so as to have an apparatus for providing context-based class replacement in an object-oriented system database because the combination would provide the system having the features in object-oriented computing environment for the replacement of classes at any location in the hierarchy while preserving the inheritance of each class in the hierarchy (Bale – col. 2, lines 3-49) in the object-oriented programming framework environment.

With respect to claim 4, Bale discloses a factory object that generates an instance of the selected class by accessing the appropriate entry in the class configuration data using the key (col. 8, lines 1-61 and col. 13, lines 28-61; col. 7, lines 10-67 and col. 8, lines 1-61).

With respect to claim 5, Bale discloses an apparatus for providing context class as discussed in claim 1.

Bale does not explicitly indicate, "the context information."

However, Leung discloses the context as claimed (col. 13, lines 1-37).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Bale with the teachings of Leung so as to have an apparatus for providing context-based class replacement in an object-oriented system database because the combination would provide the system having the features in object-oriented computing environment for the replacement of classes at any location in the hierarchy while preserving the inheritance of each class in

the hierarchy (Bale – col. 2, lines 3-49) in the object-oriented programming framework

environment.

     With respect to claim 6, Bale discloses the configuration data as claimed (col. 8,

lines 1-61 and col. 13, lines 28-61).

     Bale does not explicitly indicate, "the steps of retrieving configuration data

corresponding to the class in a selected processing context using a corresponding key

that includes information relating to the selected processing context; and instantiating

the instance of the class using the retrieved configuration data."

     However, Leung discloses the retrieving data as claimed (col. 20, lines 10-26)

and instantiating the instance of the class as claimed (col. 14, lines 59-67, col. 15, lines

1-10 and col. 20, lines 10-64).

     Therefore, it would have been obvious to a person of ordinary skill in the art at

the time the invention was made to combine the teachings of Bale with the teachings of

Leung so as to have an apparatus for providing context-based class replacement in an

object-oriented system database because the combination would provide the system

having the features in object-oriented computing environment for the replacement of

classes at any location in the hierarchy while preserving the inheritance of each class in

the hierarchy (Bale – col. 2, lines 3-49) in the object-oriented programming framework

environment.

     With respect to claims 7-8, Bale discloses a method for creating an instance of

an object-oriented class as discussed in claim 6.

Bale does not explicitly indicate, "the step of storing the configuration data with

the corresponding key and the context information."

However, Leung discloses the key as claimed (abstract, col. 17, lines 10-67 and

col. 18, lines 1-6) and the context information as claimed (col. 13, lines 1-37).

Therefore, it would have been obvious to a person of ordinary skill in the art at

the time the invention was made to combine the teachings of Bale with the teachings of

Leung so as to have an apparatus for providing context-based class replacement in an

object-oriented system database because the combination would provide the system

having the features in object-oriented computing environment for the replacement of

classes at any location in the hierarchy while preserving the inheritance of each class in

the hierarchy (Bale – col. 2, lines 3-49) in the object-oriented programming framework

environment.

Claim 9 is essentially the same as claim 2 except that it is directed to a method

rather than an apparatus (col. 4, lines 1-49 and col. 8, lines 1-29), and is rejected for the

same reason as applied to the claim 2 hereinabove.

Claim 10 is essentially the same as claim 3 except that it is directed to a method

rather than an apparatus (col. 10, lines 45-60, col. 13, lines 20-67 and col. 14, lines 1-

31), and is rejected for the same reason as applied to the claim 3 hereinabove.

Claim 11 is essentially the same as claim 5 except that it is directed to a method

rather than an apparatus (col. 13, lines 1-37), and is rejected for the same reason as

applied to the claim 5 hereinabove.

With respect to claim 12, Bale discloses storing configuration data for the existing

class; replacing the configuration data for the existing class with configuration data for

the replacement class while maintaining the same corresponding key; initiating the

creation of an instance of the replacement class;; retrieving the configuration data for

the replacement class using the generated key; and creating an instance of the

replacement class according to the retrieved configuration data for the replacement

class (col. 8, lines 1-61 and col. 13, lines 28-61; col. 1, lines 60-67, col. 2, lines 1-49 and

col. 7, lines 10-67; col. 2, lines 3-18 and col. 7, lines 10-64; col. 7, lines 10-67, col. 9,

lines 31-67 and col. 10, lines 1-26)

Bale does not explicitly indicate, "using a corresponding key that includes

information relating to a selected processing context; generating a key that includes

information relating to the current processing context."

However, Leung discloses the key and the processing context as claimed

(col.13, lines 1-67 and col. 14, lines 1-31).

Therefore, it would have been obvious to a person of ordinary skill in the art at

the time the invention was made to combine the teachings of Bale with the teachings of

Leung so as to obtain a method for replacing an existing class with a replacement class

in a distributed object system because the combination would provide the system

having the features in object-oriented computing environment for the replacement of

classes at any location in the hierarchy while preserving the inheritance of each class in

the hierarchy (Bale – col. 2, lines 3-49) in the object-oriented programming framework

environment.

With respect to claim 13, Bale discloses an object oriented class replacement

mechanism that generates an instance of a selected class and to access an appropriate

entry in class configuration data stored external to the class; and signal bearing media

bearing the object oriented class replacement mechanism (col. 1, lines 60-67, col. 2,

lines 1-49 and col. 7, lines 10-67; col. 8, lines 1-61 and col. 13, lines 28-61; col. 6, lines

5-26, col. 7, lines 10-67 and col. 8, lines 1-61).

Bale does not explicitly indicate, "a key that includes information relating to a

selected processing context."

However, Leung discloses the key and the processing context as claimed

(col.13, lines 1-67 and col. 14, lines 1-31).

Therefore, it would have been obvious to a person of ordinary skill in the art at

the time the invention was made to combine the teachings of Bale with the teachings of

Leung so as to have a program product for replacing an existing class with a

replacement class in a distributed object system because the combination would

provide the system having the features in object-oriented computing environment for the

replacement of classes at any location in the hierarchy while preserving the inheritance

of each class in the hierarchy (Bale – col. 2, lines 3-49) in the object-oriented

programming framework environment.

With respect to claims 14-15, Bale discloses a program product as discussed in

claim 13.

Bale does not explicitly indicate, "wherein said signal bearing media comprises

recordable media; wherein said signal bearing media comprises transmission media."

However, Leung discloses media type and transmission media (col. 8, lines 24-60 and col. 7, lines 1-30).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Bale with the teachings of Leung so as to have a program product for replacing an existing class with a replacement class in a distributed object system because the combination would provide the system having the features in object-oriented computing environment for the replacement of classes at any location in the hierarchy while preserving the inheritance of each class in the hierarchy (Bale – col. 2, lines 3-49) in the object-oriented programming framework environment.

Claim 16 is essentially the same as claim 2 except that it is directed to a program product rather than an apparatus (col. 4, lines 1-49 and col. 8, lines 1-29), and is rejected for the same reason as applied to the claim 2 hereinabove.

Claim 17 is essentially the same as claim 3 except that it is directed to a program product rather than an apparatus (col. 10, lines 45-60, col. 13, lines 20-67 and col. 14, lines 1-31), and is rejected for the same reason as applied to the claim 3 hereinabove.

Claim 18 is essentially the same as claim 4 except that it is directed to a program product rather than an apparatus (col. 8, lines 1-61 and col. 13, lines 28-61; col. 7, lines 10-67 and col. 8, lines 1-61), and is rejected for the same reason as applied to the claim 4 hereinabove.

Claim 19 is essentially the same as claim 5 except that it is directed to a program

product rather than an apparatus (col. 13, lines 1-37), and is rejected for the same

reason as applied to the claim 5 hereinabove.

Contact Information

4.   Any inquiry concerning this communication should be directed to Anh Ly whose

telephone number is (703) 306-4527. The examiner can be reached on Monday - Friday

from 8:00 AM to 4:00 PM.

If attempts to reach the examiner are unsuccessful, see the examiner's

supervisor, Kim Vu, can be reached on (703) 305-4393.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 746-7238 (after Final Communication)

or:

(703) 746-7239 (for formal communications intended for entry)

or:

(703) 746-7240 (for informal or draft communications, or Customer Service

Center, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal

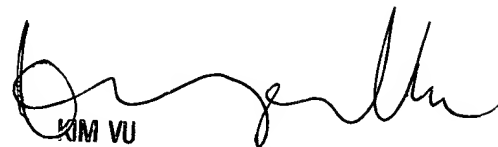Drive, Arlington, VA, Fourth Floor (receptionist).

Inquiries of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-3900.

AL

Apr. 19th, 2002.

KIM VU

SUPERVISORY PATENT EXAMINER

TECHNOLOGY CENTER 2100